

June 25, 2019

Linh Kieu
Bureau of Safe Drinking Water
Nevada Division of Environmental Protection
901 South Stewart, Suite 4001
Carson City, NV 89701

Dear Mr. Kieu,

Enclosed you will find the Water Treatment and Water Distribution Summary Reports for the certification examinations that took place on June 13, 2019 at various sites throughout the State.

The individual results have been sent in a separate email to you and Max Sosa. Should you have any questions or need further information, please contact me at 909.291.2100 or by email genriquez@ca-nv-awwa.org. You are also welcome to contact Steven Garner, Certification Manager at 916.889.8465 or by email sgarner@ca-nv-awwa.org.

Sincerely,



Gina Enriquez
Certification Specialist
CA-NV AWWA

cc: Max Sosa
Rachel Weingart
Yan Zhang
Will Raymond
Steven Garner
Tim Worley

Examination Summary Reports

June 2019 Examinations

Prepared for
Bureau of Safe Drinking Water, Nevada Division of Environmental Protection

Prepared By
California – Nevada Section of the American Water Works Association
June 25, 2019

Overall Exam Results

Exam Analysis Pass/Failure Rate

Water Distribution - Entire State:

22 Passed the Exam
14 Failed the Exam

Water Treatment - Entire State:

08 Passed the Exam
07 Failed the Exam

By Region:

Northern NV: 26 Testers

Passing Rate of 62%
Failure Rate of 38%

Southern NV: 10 Testers

Passing Rate of 60%
Failure Rate of 40%

By Region:

Northern NV: 08 Testers

Passing Rate of 50%
Failure Rate of 50%

Southern NV: 07 Testers

Passing Rate of 57%
Failure Rate of 43%

Analysis Pass/Failure Rate

by Grade Level/Discipline

Water Distribution - Entire State:

22 Passed the Exam
14 Failed the Exam

Water Treatment - Entire State:

08 Passed the Exam
07 Failed the Exam

By Discipline Pass/Failure:

Distribution Grade 1 (D1)

09 Passed
04 Failed

Distribution Grade 2 (D2)

10 Passed
06 Failed

Distribution Grade 3 (D3)

01 Passed
03 Failed

Distribution Grade 4 (D4)

02 Passed
01 Failed

By Discipline Pass/Failure:

Treatment Grade 1 (T1)

04 Passed
05 Failed

Treatment Grade 2 (T2)

04 Passed
00 Failed

Treatment Grade 3 (T3)

00 Passed
01 Failed

Treatment Grade 4 (T4)

00 Passed
01 Failed

DISTRIBUTION OPERATOR CERTIFICATION

The Topics Identified Below Had a "Partial Mastering" Rate of More Than 20%

Grade I – Distribution

- Install Equipment
- Perform Maintenance
- Perform Security, Safety & Admin
- Operate Equipment
- System Information/Components
- Monitor, Evaluate & Adjust Disinfection

Grade II – Distribution

- Perform Security, Safety & Admin
- Monitor, Evaluate & Adjust Disinfection
- System Information / Components
- Install Equipment
- Perform Maintenance
- Laboratory Analysis

Grade III – Distribution

- Install Equipment
- Perform Maintenance
- System Information / Components
- Monitor, Evaluate & Adjust Disinfection
- Operate Equipment
- Laboratory Analysis

Grade IV – Distribution

- Install Equipment
- Perform Maintenance
- Laboratory Analysis
- Operate Equipment
- Monitor, Evaluate & Adjust Disinfection
- Perform Security, Safety & Admin
- System Information / Components

Treatment Operator Certification

The Topics Identified Below Had a "Partial Mastering" Rate of More Than 20%

Grade I – Treatment

- Laboratory Analyses
- Perform Security, Safety, & Administration
- Monitor, Evaluate & Adjust Treatment
- Comply w/Drinking Water Regs
- Operate & Maintain Equipment
- Evaluate Characteristics of Source Water

Grade II – Treatment

- Laboratory Analyses
- Perform Security, Safety, & Administration
- Comply w/Drinking Water Regs
- Evaluate Characteristics of Source Water

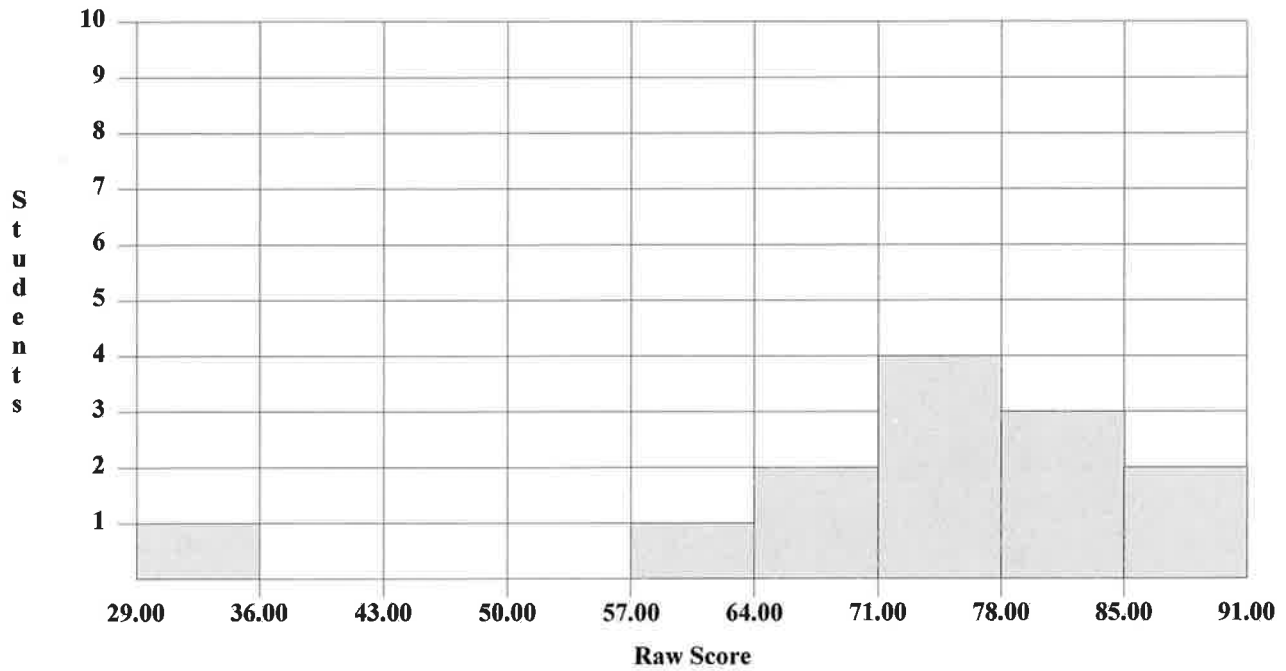
Grade III – Treatment

- Evaluate Characteristics of Source Water
- Monitor, Evaluate & Adjust Treatment
- Laboratory Analyses
- Operate & Maintain Equipment
- Comply w/Drinking Water Regs

Grade IV – Treatment

- Operate & Maintain Equipment
- Laboratory Analyses
- Evaluate Characteristics of Source Water

TEST STATISTICS REPORT
ABC Water Distribution Class I Exam
ABC1264D



Test Name:	ABC1264D	
Test Date:	10/12/2012	
Number of Examinees:	13	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	91.00	(91.00)
Lowest Score:	29.00	(29.00)
Median:	73.00	(73.00)
Mean:	71.69	(71.69)
Standard Deviation:	15.08	
Test Reliability:	0.93	
Standard Error of Measurement:	4.01	

MASTERY SUMMARY REPORT
for ABC Water Distribution Class I

Test Name: ABC1264D

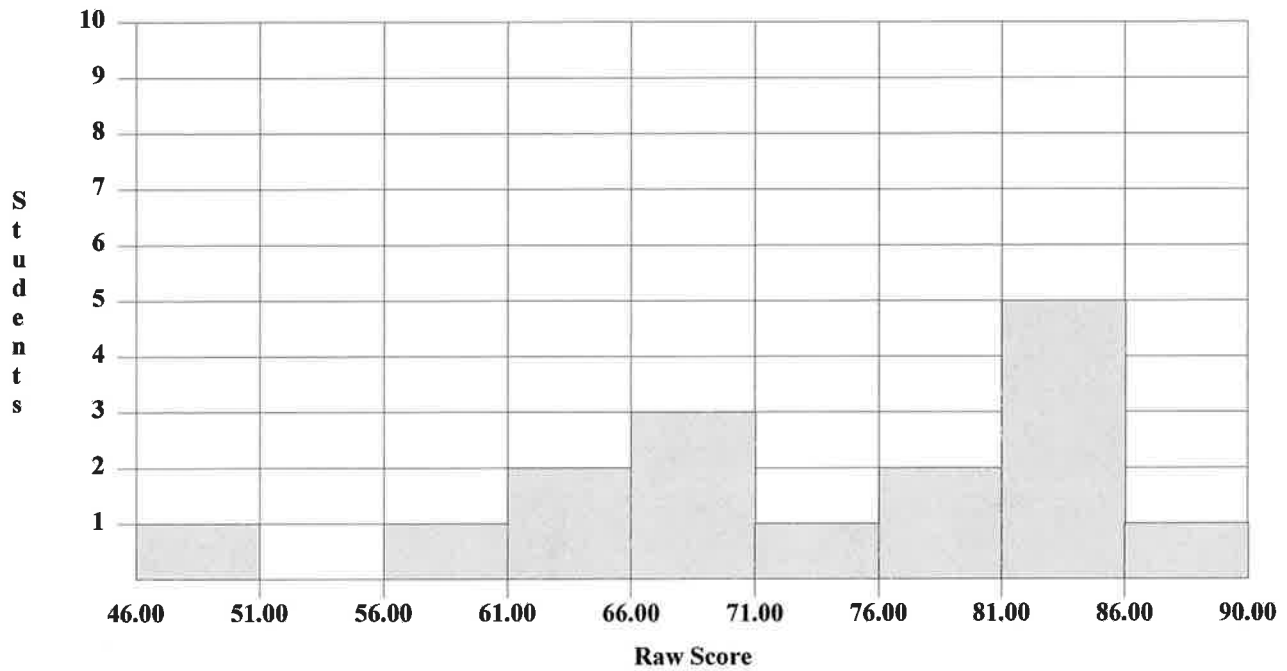
Test version: 0

Scoring Date: 6/20/2019

of Students: 13

# M	Number Mastering	% M	% Mastering			PTS	Possible Points			
# PM	Number Partial Mastering	% PM	% Partial Mastering			HIGH	Highest Points			
# NM	Number Not Mastering	% NM	% Not Mastering			LOW	Lowest Points			
						AVG	Average Points			
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	8	5	0	61.54	38.46	0.00	16.00	16.00	8.00	12.23
Install Equipment	6	6	1	46.15	46.15	7.69	5.00	5.00	0.00	3.15
Perform Maintenance	7	5	1	53.85	38.46	7.69	20.00	18.00	6.00	13.31
Monitor, Eval, & Adjust Disinfection	9	3	1	69.23	23.08	7.69	11.00	10.00	2.00	7.77
Operate Equipment	9	3	1	69.23	23.08	7.69	18.00	16.00	5.00	12.62
System Information/Components	9	3	1	69.23	23.08	7.69	9.00	9.00	3.00	7.15
Laboratory Analysis	10	2	1	76.92	15.38	7.69	21.00	20.00	5.00	15.46

TEST STATISTICS REPORT
ABC Water Distribution Class II Exam
ABC1017D



Test Name:	ABC1017D	
Test Date:	10/12/2012	
Number of Examinees:	16	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	90.00	(90.00)
Lowest Score:	46.00	(46.00)
Median:	75.50	(75.50)
Mean:	73.13	(73.13)
Standard Deviation:	11.64	
Test Reliability:	0.88	
Standard Error of Measurement:	3.99	

MASTERY SUMMARY REPORT
for ABC Water Distribution Class II

Test Name: ABC1017D

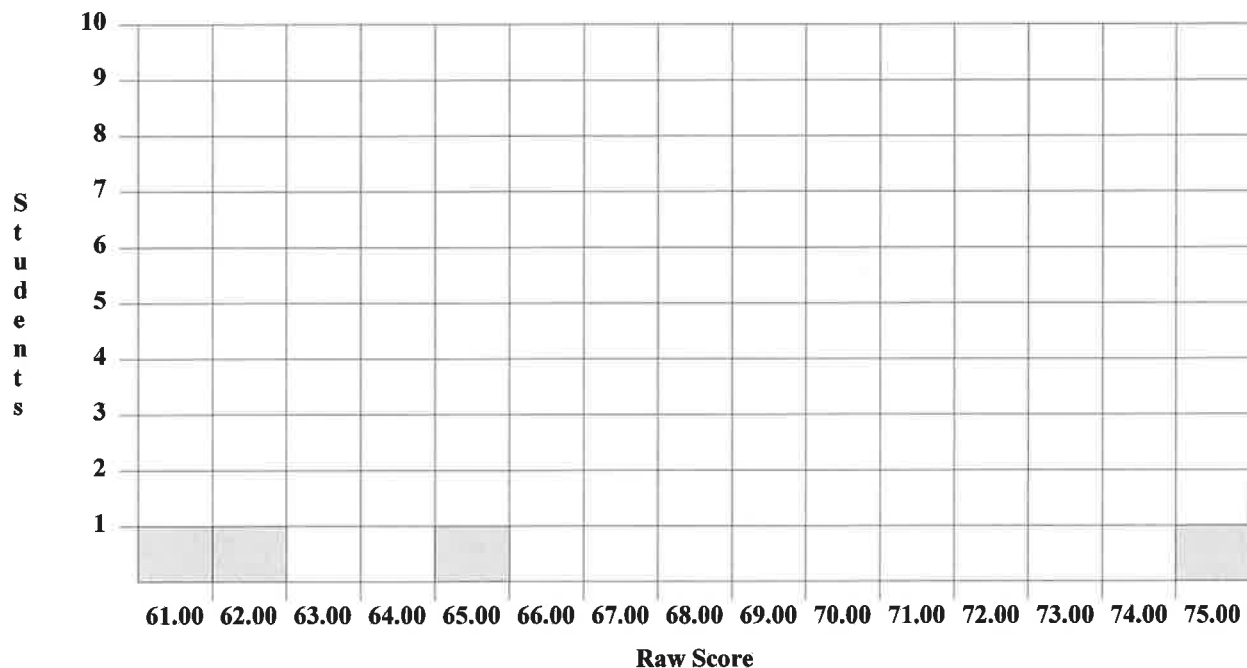
Test version: 0

Scoring Date: 6/20/2019

of Students: 16

# M	Number Mastering	% M	% Mastering			PTS	Possible Points			
# PM	Number Partial Mastering	% PM	% Partial Mastering			HIGH	Highest Points			
# NM	Number Not Mastering	% NM	% Not Mastering			LOW	Lowest Points			
						AVG	Average Points			
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	11	5	0	68.75	31.25	0.00	16.00	15.00	9.00	12.13
Install Equipment	12	4	0	75.00	25.00	0.00	5.00	5.00	2.00	4.00
Perform Maintenance	12	4	0	75.00	25.00	0.00	20.00	18.00	8.00	14.56
Monitor, Eval, & Adjust Disinfection	4	8	4	25.00	50.00	25.00	11.00	10.00	4.00	6.25
Operate Equipment	13	3	0	81.25	18.75	0.00	18.00	17.00	8.00	14.06
System Information/Components	8	7	1	50.00	43.75	6.25	9.00	9.00	2.00	6.50
Laboratory Analysis	11	5	0	68.75	31.25	0.00	21.00	21.00	9.00	15.63

TEST STATISTICS REPORT
ABC Water Distribution Class III Exam
ABC1018D



Test Name:	ABC1018D	
Test Date:	10/12/2012	
Number of Examinees:	4	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	75.00	(75.00)
Lowest Score:	61.00	(61.00)
Median:	63.50	(63.50)
Mean:	65.75	(65.75)
Standard Deviation:	6.40	
Test Reliability:	0.59	
Standard Error of Measurement:	4.08	

MASTERY SUMMARY REPORT
for ABC Water Distribution Class III

Test Name: ABC1018D

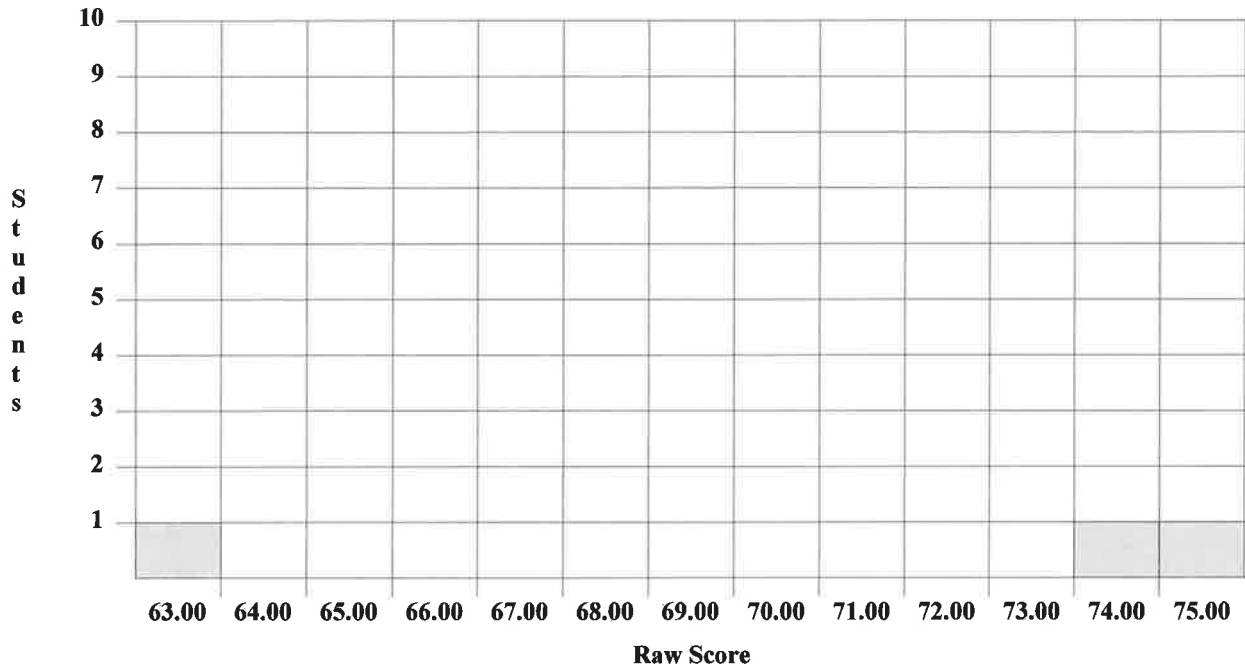
Test version: 0

Scoring Date: 6/20/2019

of Students: 4

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	4	0	0	100.00	0.00	0.00	17.00	14.00	13.00	13.25
Install Equipment	2	2	0	50.00	50.00	0.00	5.00	5.00	3.00	3.75
Perform Maintenance	1	3	0	25.00	75.00	0.00	20.00	14.00	10.00	11.50
Monitor, Eval, & Adjust Disinfection	0	3	1	0.00	75.00	25.00	10.00	6.00	3.00	4.75
Operate Equipment	2	2	0	50.00	50.00	0.00	18.00	14.00	10.00	12.00
System Information/Components	1	3	0	25.00	75.00	0.00	9.00	8.00	5.00	5.75
Laboratory Analysis	3	1	0	75.00	25.00	0.00	21.00	15.00	14.00	14.75

TEST STATISTICS REPORT
ABC Water Distribution Class IV Exam
ABC1019D



Test Name:	ABC1019D	
Test Date:	10/12/2012	
Number of Examinees:	3	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	75.00	(75.00)
Lowest Score:	63.00	(63.00)
Median:	74.00	(74.00)
Mean:	70.67	(70.67)
Standard Deviation:	6.66	
Test Reliability:	0.62	
Standard Error of Measurement:	4.13	

MASTERY SUMMARY REPORT
for ABC Water Distribution Class IV

Test Name: ABC1019D

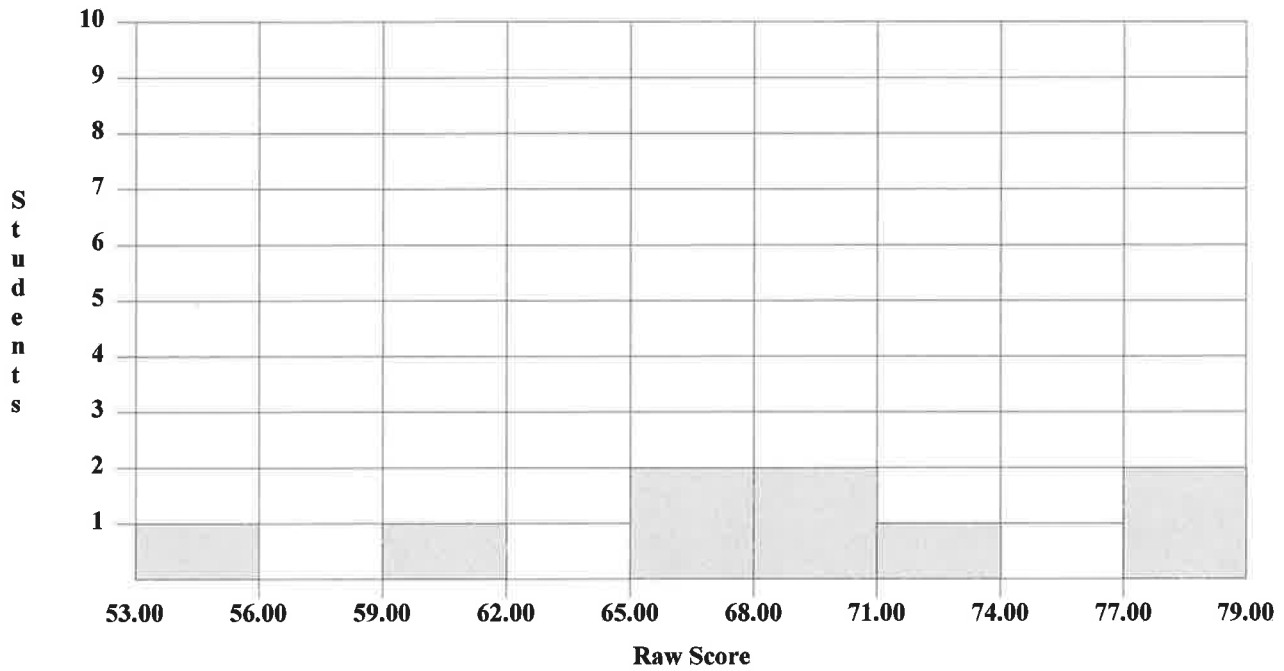
Test version: 0

Scoring Date: 6/20/2019

of Students: 3

# M	Number Mastering	% M	% Mastering			PTS	Possible Points			
# PM	Number Partial Mastering	% PM	% Partial Mastering			HIGH	Highest Points			
# NM	Number Not Mastering	% NM	% Not Mastering			LOW	Lowest Points			
						AVG	Average Points			
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	1	2	0	33.33	66.67	0.00	17.00	14.00	11.00	12.00
Install Equipment	1	2	0	33.33	66.67	0.00	5.00	4.00	2.00	3.00
Perform Maintenance	2	1	0	66.67	33.33	0.00	21.00	18.00	14.00	16.00
Monitor, Eval, & Adjust Disinfection	2	1	0	66.67	33.33	0.00	10.00	9.00	6.00	7.67
Operate Equipment	1	2	0	33.33	66.67	0.00	18.00	13.00	12.00	12.33
System Information/Components	2	1	0	66.67	33.33	0.00	9.00	8.00	6.00	7.00
Laboratory Analysis	0	3	0	0.00	100.00	0.00	20.00	13.00	12.00	12.67

TEST STATISTICS REPORT
ABC Water Treatment Class I Exam
ABC1266W



Test Name:	ABC1266W	
Test Date:	10/12/2012	
Number of Examinees:	9	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	79.00	(79.00)
Lowest Score:	53.00	(53.00)
Median:	68.00	(68.00)
Mean:	68.22	(68.22)
Standard Deviation:	8.44	
Test Reliability:	0.74	
Standard Error of Measurement:	4.28	

MASTERY SUMMARY REPORT
for ABC Water Treatment Class I

Test Name: ABC1266W

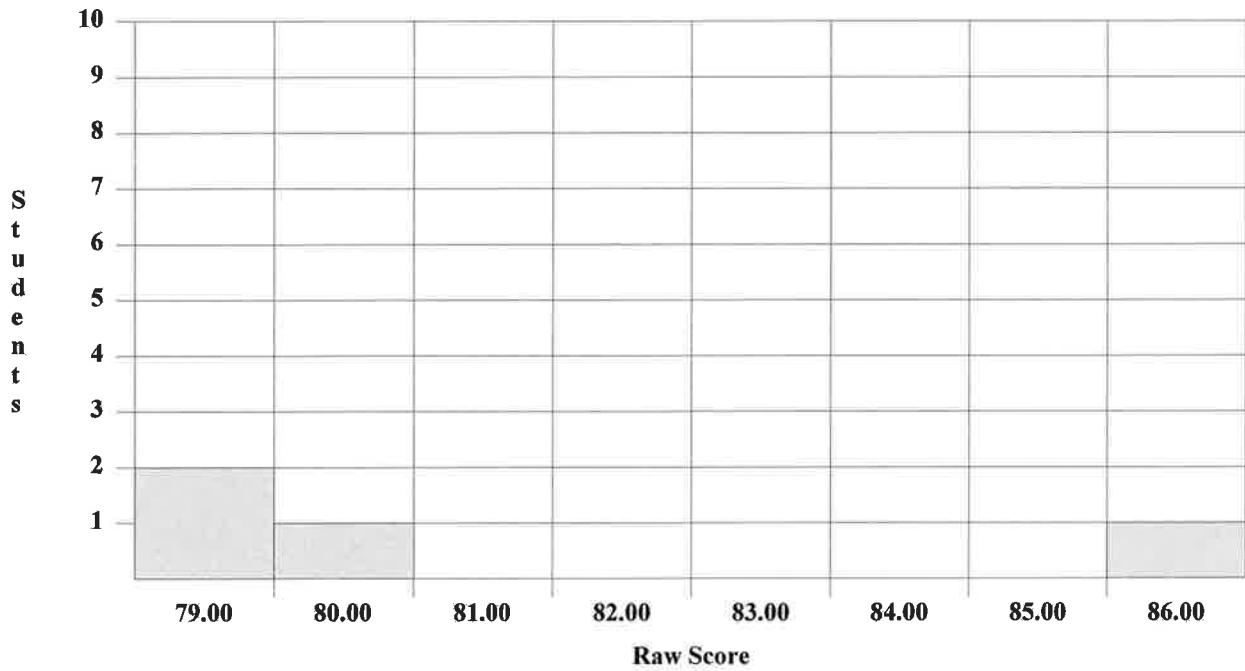
Test version: 0

Scoring Date: 6/20/2019

of Students: 9

# M	Number Mastering	% M	% Mastering	PTS	Possible Points					
# PM	Number Partial Mastering	% PM	% Partial Mastering	HIGH	Highest Points					
# NM	Number Not Mastering	% NM	% Not Mastering	LOW	Lowest Points					
				AVG	Average Points					
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	3	6	0	33.33	66.67	0.00	13.00	10.00	8.00	9.00
Laboratory Analyses	6	2	1	66.67	22.22	11.11	12.00	11.00	3.00	8.44
Comply w/ Drinking Water Regs	1	8	0	11.11	88.89	0.00	12.00	9.00	5.00	6.56
Operate & Maintain Equipment	4	4	1	44.44	44.44	11.11	27.00	21.00	10.00	17.67
Eval Characteristics of Source Water	5	4	0	55.56	44.44	0.00	6.00	6.00	4.00	4.67
Monitor, Eval, & Adjust Treatment	6	3	0	66.67	33.33	0.00	30.00	27.00	16.00	21.89

TEST STATISTICS REPORT
ABC Water Treatment Class II Exam
ABC1042W



Test Name:	ABC1042W	
Test Date:	4/14/2011	
Number of Examinees:	4	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	86.00	(86.00)
Lowest Score:	79.00	(79.00)
Median:	79.50	(79.50)
Mean:	81.00	(81.00)
Standard Deviation:	3.37	
Test Reliability:	-0.25	
Standard Error of Measurement:	3.77	

MASTERY SUMMARY REPORT
for ABC Water Treatment Class II

Test Name: ABC1042W

Test version: 0

Scoring Date: 6/20/2019

of Students: 4

# M	Number Mastering	% M	% Mastering				PTS	Possible Points			
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points			
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points			
							AVG	Average Points			
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG	
Perform Security, Safety, & Admin	2	2	0	50.00	50.00	0.00	16.00	15.00	10.00	12.50	
Laboratory Analyses	3	1	0	75.00	25.00	0.00	13.00	12.00	8.00	10.50	
Comply w/ Drinking Water Regs	2	2	0	50.00	50.00	0.00	12.00	10.00	8.00	8.75	
Operate & Maintain Equipment	4	0	0	100.00	0.00	0.00	26.00	22.00	19.00	20.25	
Eval Characteristics of Source Water	2	2	0	50.00	50.00	0.00	5.00	5.00	3.00	4.00	
Monitor, Eval, & Adjust Treatment	4	0	0	100.00	0.00	0.00	28.00	26.00	24.00	25.00	

TEST STATISTICS REPORT
ABC Water Treatment Class III Exam
ABC1043W

10	
9	
8	
7	
6	
5	
4	
3	
2	
1	

63.00

Raw Score

Test Name:	ABC1043W	
Test Date:	10/12/2012	
Number of Examinees:	1	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	63.00	(63.00)
Lowest Score:	63.00	(63.00)
Median:	63.00	(63.00)
Mean:	63.00	(63.00)
Standard Deviation:	-	
Test Reliability:	-	
Standard Error of Measurement:	-	

MASTERY SUMMARY REPORT
for ABC Water Treatment Class III

Test Name: ABC1043W
Scoring Date: 6/20/2019

Test version: 0
of Students: 1

# M	Number Mastering	% M	% Mastering				PTS	Possible Points		
# PM	Number Partial Mastering	% PM	% Partial Mastering				HIGH	Highest Points		
# NM	Number Not Mastering	% NM	% Not Mastering				LOW	Lowest Points		
							AVG	Average Points		
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	1	0	0	100.00	0.00	0.00	18.00	15.00	15.00	15.00
Laboratory Analyses	0	1	0	0.00	100.00	0.00	11.00	5.00	5.00	5.00
Comply w/ Drinking Water Regs	0	1	0	0.00	100.00	0.00	11.00	7.00	7.00	7.00
Operate & Maintain Equipment	0	1	0	0.00	100.00	0.00	24.00	16.00	16.00	16.00
Eval Characteristics of Source Water	0	1	0	0.00	100.00	0.00	5.00	2.00	2.00	2.00
Monitor, Eval, & Adjust Treatment	0	1	0	0.00	100.00	0.00	31.00	18.00	18.00	18.00

TEST STATISTICS REPORT
ABC Water Treatment Class IV Exam
ABC1044W

10	
9	
8	
7	
6	
5	
4	
3	
2	
1	

67.00

Raw Score

Test Name:	ABC1044W	
Test Date:	10/12/2012	
Number of Examinees:	1	
Number of Items:	100	
Maximum Possible Points:	100.00	
Highest Score:	67.00	(67.00)
Lowest Score:	67.00	(67.00)
Median:	67.00	(67.00)
Mean:	67.00	(67.00)
Standard Deviation:	-	
Test Reliability:	-	
Standard Error of Measurement:	-	

MASTERY SUMMARY REPORT
for ABC Water Treatment Class IV

Test Name: ABC1044W
Scoring Date: 6/20/2019

Test version: 0
of Students: 1

# M	Number Mastering	% M	% Mastering	PTS	Possible Points					
# PM	Number Partial Mastering	% PM	% Partial Mastering	HIGH	Highest Points					
# NM	Number Not Mastering	% NM	% Not Mastering	LOW	Lowest Points					
				AVG	Average Points					
Objective	# M	# PM	# NM	% M	% PM	% NM	PTS	HIGH	LOW	AVG
Perform Security, Safety, & Admin	1	0	0	100.00	0.00	0.00	18.00	15.00	15.00	15.00
Laboratory Analyses	0	1	0	0.00	100.00	0.00	11.00	7.00	7.00	7.00
Comply w/ Drinking Water Regs	1	0	0	100.00	0.00	0.00	10.00	7.00	7.00	7.00
Operate & Maintain Equipment	0	1	0	0.00	100.00	0.00	25.00	14.00	14.00	14.00
Eval Characteristics of Source Water	0	1	0	0.00	100.00	0.00	5.00	2.00	2.00	2.00
Monitor, Eval, & Adjust Treatment	1	0	0	100.00	0.00	0.00	31.00	22.00	22.00	22.00